6GC5

Power Pentode

NEONOVAL TYPE

GENERAL DATA

Electrical:

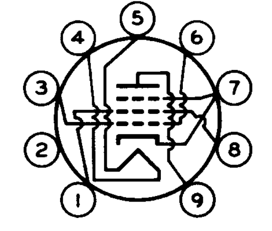
Heater Characteristics and Ratings *(Design-Maximum Values):*

Voltage (AC or DC)	6.3 ± 0.6		volts
Current at heater volts = 6.3	1.200		amp
Peak heater-cathode voltage:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200[a]	max.	volts
Direct Interelectrode Capacitances (Approx.):[b]			
Grid No.1 to plate	0.9		$\mu\mu$f
Grid No.1 to cathode & grid No.3, grid No.2, and heater	18.0		$\mu\mu$f
Plate to cathode & grid No.3, grid No.2 and heater	7.0		$\mu\mu$f

Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	3.230"
Maximum Seated Length	2.920"
Length, Base Seat to Bulb Top (Excluding tip)	2.370" to 2.610"
Diameter	1.062" to 1.188"
Bulb	T9
Base	Large-Button Neonoval 9-Pin (JEDEC No.E9-68)
Basing Designation for BOTTOM VIEW	9EU

Pin 1 - Grid No.2
Pin 2 - No Internal Connection
Pin 3 - Grid No.1
Pin 4 - Heater
Pin 5 - Heater



Pin 6 - Grid No.1
Pin 7 - Cathode, Grid No.3
Pin 8 - Grid No.2
Pin 9 - Plate

AF POWER AMPLIFIER — Class A_1

Maximum Ratings, *Design-Maximum Values:*

PLATE VOLTAGE	220	max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE	140	max.	volts
GRID-No.2 INPUT	1.4	max.	watts
PLATE DISSIPATION	12	max.	watts

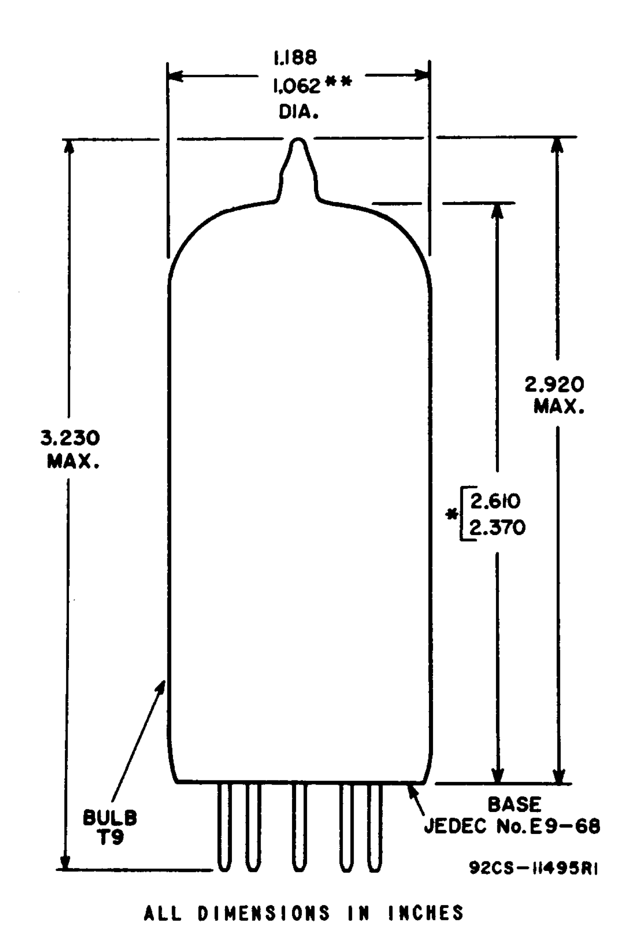
Typical Operation and Characteristics:

	Fixed Bias	*Cathode Bias*	
Plate Supply Voltage.	110	200	volts
Grid-No.2 Supply Voltage.	110	125	volts
Grid-No.1 (Control-Grid) Voltage. .	-7.5	-	volts
Cathode Resistor.	-	180	ohms
Peak AF Grid-No.1 Voltage	7.5	8.5	volts
Zero-Signal Plate Current	49	46	ma
Max.-Signal Plate Current	50	47	ma
Zero-Signal Grid-No.2 Current . . .	4	2.2	ma
Max.-Signal Grid-No.2 Current . . .	10	8.5	ma
Plate Resistance (Approx.).	13000	28000	ohms
Transconductance.	8000	8000	μmhos
Load Resistance	2000	4000	ohms
Total Harmonic Distortion	10	10	%
Max.-Signal Power Output.	2.1	3.8	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:		
For fixed-bias operation.	0.1 max.	megohm
For cathode-bias operation. . . .	0.5 max.	megohm

[a] The dc component must not exceed 100 volts.
[b] Without external shield.

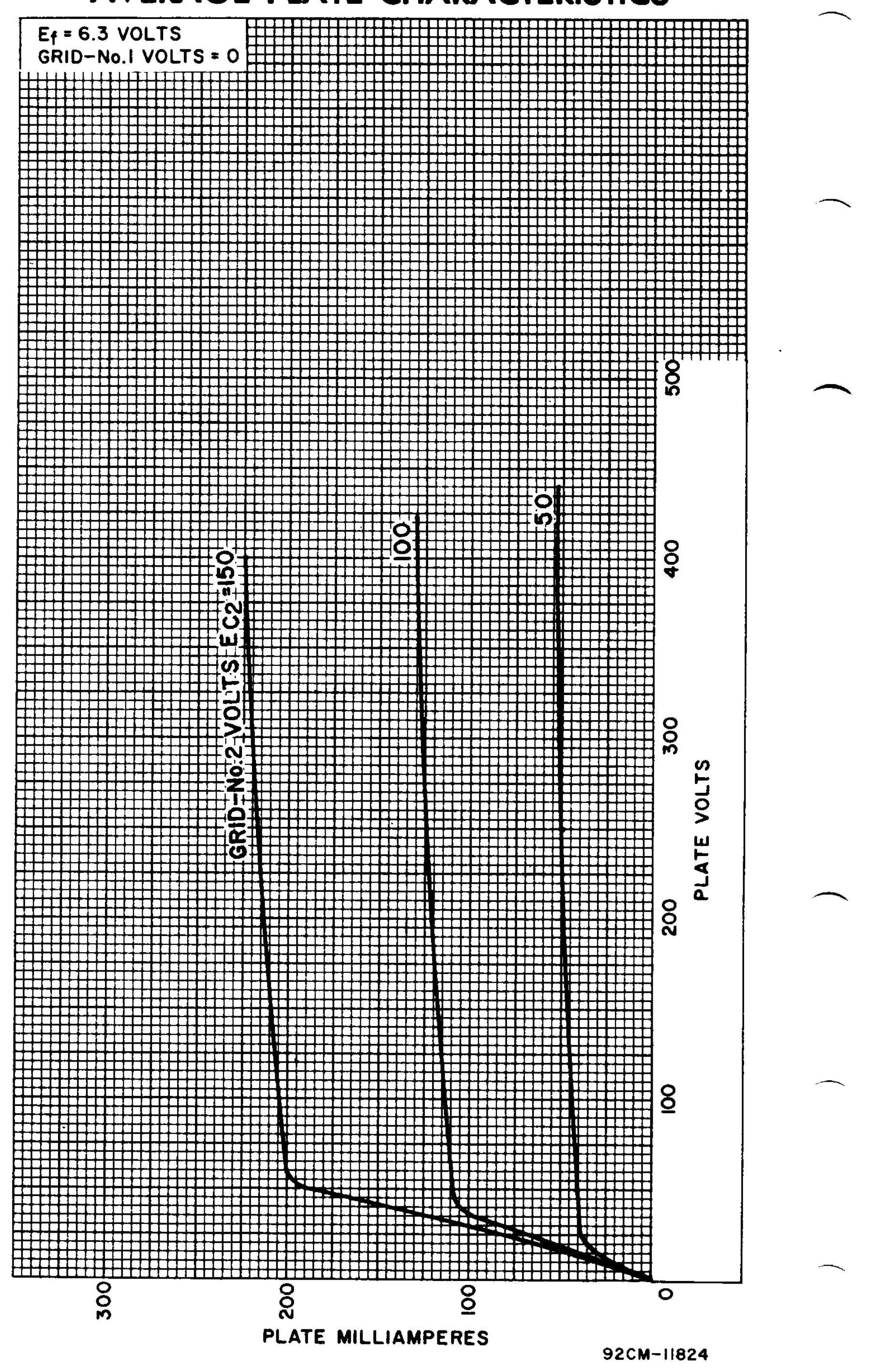


ALL DIMENSIONS IN INCHES

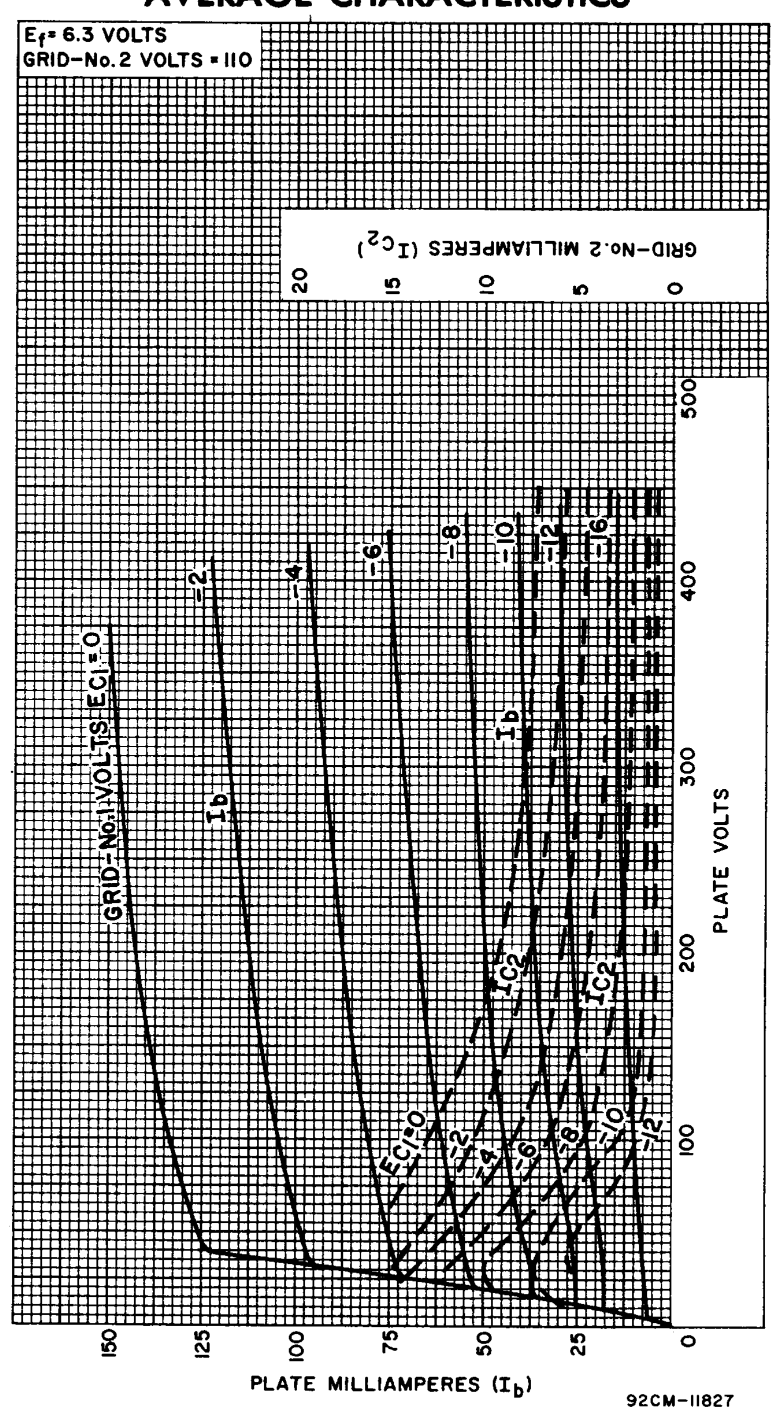
** APPLIES IN ZONE STARTING 0.375" FROM BASE SEAT.

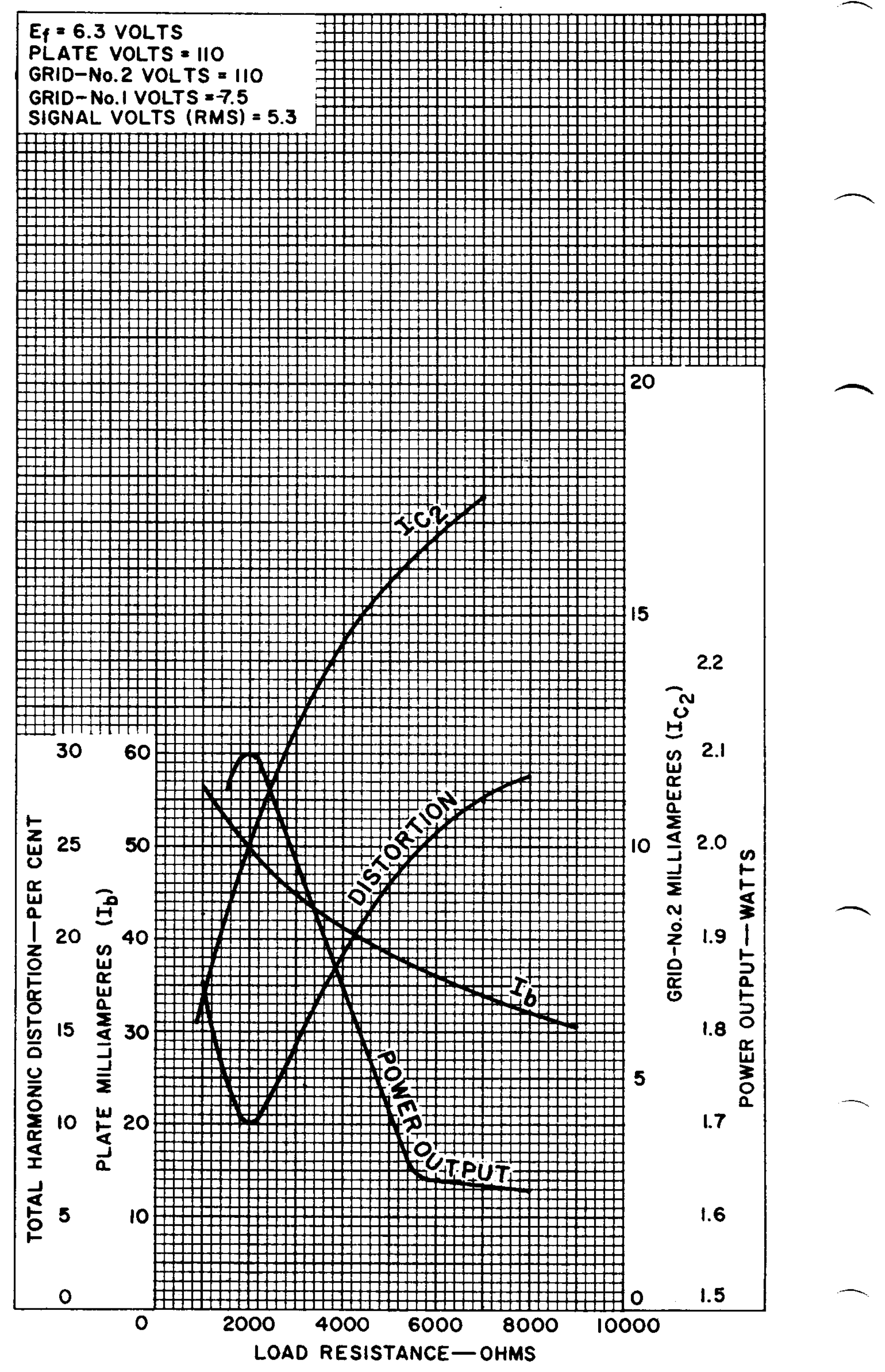
* MEASURED FROM BASE SEAT TO BULB-TOP LINE AS DETERMINED BY A RING GAUGE OF 0.600" INSIDE DIAMETER.

AVERAGE PLATE CHARACTERISTICS



AVERAGE CHARACTERISTICS




OPERATION CHARACTERISTICS
Ef = 6.3 VOLTS
PLATE VOLTS = 110
GRID-No.2 VOLTS = 110
GRID-No.1 VOLTS = -7.5
SIGNAL VOLTS (RMS) = 5.3
IC2
DISTORTION
Ib
POWER OUTPUT
TOTAL HARMONIC DISTORTION—PER CENT
PLATE MILLIAMPERES (Ib)
GRID-No.2 MILLIAMPERES (IC2)
POWER OUTPUT—WATTS
0
5
10
15
20
25
30
10
20
30
40
50
60
2000
4000
6000
8000
10000
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
LOAD RESISTANCE—OHMS
92CM-11828